

Europäisches Patentamt
European Patent Office
Office européen des brevets



(11) **EP 1 011 235 A3**

(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:
02.05.2002 Bulletin 2002/18

(51) Int Cl.7: **H04L 27/26, H04B 3/54**

(43) Date of publication A2:
21.06.2000 Bulletin 2000/25

(21) Application number: **99307702.3**

(22) Date of filing: **29.09.1999**

(84) Designated Contracting States:
**AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU
MC NL PT SE**
Designated Extension States:
AL LT LV MK RO SI

(72) Inventor: **Greenwood, John Christopher**
East Tytherton, Wiltshire SN15 4LX (GB)

(74) Representative: **Bewley, Ewan Stuart et al**
Nortel Networks
Intellectual Property Law Group
London Road
Harlow, Essex CM17 9NA (GB)

(30) Priority: **15.12.1998 GB 9827601**

(71) Applicant: **Nortel Networks Limited**
Montreal, Quebec H2Y 3Y4 (CA)

(54) **Reception of multicarrier signals over power lines**

(57) An Orthogonal Frequency Division Multiplexed (OFDM) power line communications system comprising a power line for distributing electricity to a plurality of premises and a communication station coupled to the power line at one of the premises, which station uses a

part of the power line external to the premises as a communications medium. The communications station includes a receiver which comprises a clipping system adapted to clip an incoming OFDM data waveform, which includes a regular impulsive noise component, so as to reduce the level of noise on the waveform.

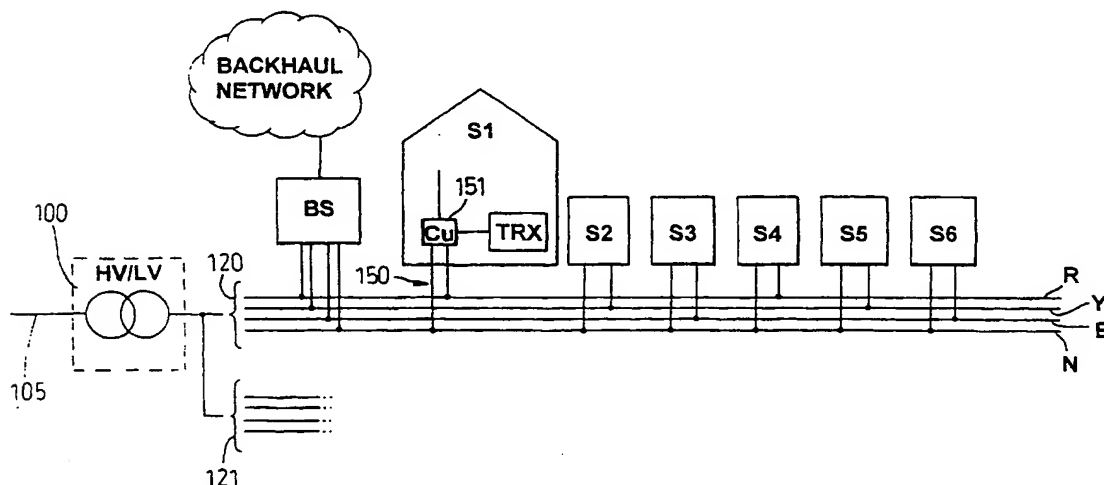


Fig.3

EP 1 011 235 A3



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 99 30 7702

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
X	WO 98 10550 A (TELIA) 12 March 1998 (1998-03-12) * page 3, line 18 - line 31 *	1-14	H04L27/26 H04B3/54
E	EP 1 043 874 A (BBC) 11 October 2000 (2000-10-11) * abstract *	1-14	
T	WEILIN LIU ET AL.: "Nature of power line medium and design aspects for broadband PLC system" INTERNATIONAL ZÜRICH SEMINAR ON BROADBAND COMMUNICATIONS, 15 - 17 February 2000, pages 185-189, XP010376458 Piscataway, US * the whole document *	1	
			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
			H04L H04B
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 11 March 2002	Examiner Scriven, P
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document</p>			

EPO FORM 1503 03/02 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 99 30 7702

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

11-03-2002

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 9810550	A	12-03-1998	SE 506639 C2	26-01-1998
			EP 0923823 A2	23-06-1999
			JP 2000517509 T	26-12-2000
			NO 990772 A	29-04-1999
			SE 9603192 A	25-11-1997
			WO 9810550 A2	12-03-1998
EP 1043874	A	11-10-2000	GB 2348783 A	11-10-2000
			EP 1043874 A2	11-10-2000

EPO FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82